

REQUEST FOR RECONSIDERATION

Claims 1-15 remain active in this application.

The claimed invention is directed to a softening detergent composition, a washing method and a method for preparing a softening detergent composition.

Detergent compositions having a softening effect have been developed in order to address fiber stiffness often associated with washing. Inadequate softening effects have been obtained by addition of conventional clay material such as smectite. Formulations containing clay materials have been reported but have yet to provide entirely satisfactory result. Thus, softening detergent formulations are sought.

The claimed invention addresses this problem by providing a softening detergent composition comprising (a) 1-30 wt.% of a clay mineral, (b) 0.5-20 wt. % of a sodium carbonate-hydrogen peroxide adduct, (c) 0.1-20 wt.% of an aromatic ester sulfate alt or aromatic ester carboxylate salt, (d) 0.4-20 wt. % of **a fatty acid salt** and 10-60 wt. % of a surfactant. Applicants have discovered the combination of **sodium carbonate-hydrogen peroxide adduct**, an aromatic ester sulfate or carboxylate, with a clay mineral, **fatty acid salt** and surfactant to provide for an enhanced softening effect relative to the use of sodium carbonate-hydrogen peroxide adduct or aromatic ester sulfate or carboxylate alone. Such a result is nowhere disclose or suggested in the cited references of record.

The rejection of claims 1-15 under 35 U.S.C. §102(b) over Baeck et al EP 297,673 as affirmed by Jayawant U.S. 3,860,694 is respectfully traversed.

No Disclosure Of Fatty Acid Salt In Combination With Sodium Hydrogen Carbonate-Hydrogen Peroxide Adduct

Baeck et al. fails to disclose or suggest **a fatty acid salt with sodium hydrogen carbonate-hydrogen peroxide adduct** in a softening detergent composition.

Baeck et al. describes a detergent softening comprising a fabric softening clay (see abstract). In addition to a clay component, the composition may further contain a deterative surfactant (anionic, nonionic, amphoteric or zwitterionic (page 3, lines 28-29)), a cleaning aid (bleaching agent (page 4, lines 28-30)) and additional softening agent (page 5, lines 10-13) but fails to identify **the combination of sodium-carbonate-hydrogen peroxide adduct and fatty acid salt**.

Page 5 of the official action references composition II from the table appearing on pages 7 and 8. The composition of example II is as follows:

5.0 wt.% C ₁₁₋₁₂ alkyl benzene sulfonate (Na)	Not a fatty acid salt
2.0 wt. % tallow alcohol sulfate (Na)	Not a fatty acid salt
2.0 wt. % tallow alcohol ethoxylate (EO ₁₁)	Not a fatty acid salt
1.0 wt. % hydrogenated tallow fatty acid	Not a fatty acid salt
1.0 wt.% dodecyl trimethyl ammonium chloride	Not a fatty acid salt
4.0 wt.% ditallowbenzamide	Not a fatty acid salt
18 wt. % sodium tripolyphosphate	Not a fatty acid salt
17.7 wt. % sodium sulfate	Not a fatty acid salt
8.0 wt. % sodium carbonate	Not a fatty acid salt
7.0 wt. % Sodium silicate	Not a fatty acid salt
15.0 wt. % sodium perborate	Not a fatty acid salt
0.3 wt. % carboxymethylcellulose	Not a fatty acid salt
1.5 wt.% polyacrylate (mw 1,000-20,000)	Not a fatty acid salt
0.2 wt.% enzymes	Not a fatty acid salt
0.2 wt.% optical brightener	Not a fatty acid salt
0.2 wt. % EDTA	Not a fatty acid salt
0.1 wt.% ethylenediamine tetramethylene phosphonic acid	Not a fatty acid salt

2.0 wt. % iso-nonanoyloxy-benzene sulfonate (Na)	Not a fatty acid salt
0.15 wt. % silicone/silica suds suppressor	Not a fatty acid salt
0.25 wt.% perfume	Not a fatty acid salt
7.0 wt. % hectorite clay	Not a fatty acid salt
Balance Moisture and minors	Not a fatty acid salt

None of these components of composition II are **salts** of fatty acids. Thus, the evidence relied upon by the examiner fails to anticipate the claimed combination. The examiner must recognize that a fatty acid salt is not disclosed **in combination with sodium hydrogen carbonate-hydrogen peroxide adduct**.

Applicants recognize the disclosure on page 3, lines 38-39 of the use of sodium and potassium coconut or tallow soaps as deterative surfactants, but also recognize that such a disclosure is in **the absence of combination** with sodium hydrogen carbonate-hydrogen peroxide adduct. Page 4, beginning at line 28 describes inclusion of a peroxy acid bleaching agent which may include a peroxyacid *per se* as well as systems which yield peroxy acids *in situ*. Examples of specific peroxy acid yielding systems **include** alkali metal perborates, percarbonates, perphopshates, persilicates and the like. An alkali metal perborate, perphopshate, persilicate and the like are not sodium hydrogen-carbonate hydrogen peroxide adduct. Given the broad disclosure of deterative surfactants of which a fatty acid salt is only one of many, as well as the broad disclosure of peroxy acid bleaching systems of which is one of many, the examiner must recognize that such a broad disclosure fails to anticipate the claimed invention.

Under 35 U.S.C. Section 102, every limitation of a claim must identically appear in a single prior art reference for it to anticipate the claim. *In re Bond*, 15 USPQ2d 1566, 1567 (Fed. Cir. 1990)

In current case, it is the claim limitation of the **combination of sodium-carbonate-hydrogen peroxide adduct and fatty acid salt** which is not identically appearing in the cited

reference. The deficiency of the reference to disclose the combination of a fatty acid salt with sodium carbonate-hydrogen peroxide must be recognized.

In contrast, the claimed invention is directed to a softening detergent composition comprising (A) 1-30 wt.% of a clay mineral, (b) 0.5-20 wt. % of a sodium carbonate-hydrogen peroxide adduct, (c) 0.1-20 wt.% of an aromatic ester sulfate salt or aromatic ester carboxylate salt, (d) 0.4-20 wt. % of **a fatty acid salt** and 10-60 wt. % of a surfactant. The examiner must recognize that the claims recite the combination of a fatty acid salt with sodium carbonate-hydrogen peroxide.

Thus, the combination of a fatty acid salt with sodium carbonate-hydrogen peroxide is clearly not anticipated by the cited reference and accordingly, withdrawal of the rejection under 35 U.S.C. §102(b) is respectfully requested.

Moreover, there is no suggestion in Baeck of obtaining an enhanced softening effect through the combination of **a fatty acid salt** with sodium carbonate-hydrogen peroxide adduct.

Applicants note that page 3, lines 38-39 of Baeck et al. disclose among a list of surfactants, common sodium and potassium coconut or tallow soaps. In addition, page 4, lines 37-40 describes peroxygen bleaching agents including percarbonates. However, the combination of fatty acid salt with sodium carbonate-hydrogen peroxide is not anticipated.

Applicants observe an enhancement in softening effect resulting from the combination of fatty acid salt with sodium carbonate-hydrogen peroxide.

As evidence of an enhanced softening effect resulting from applicants' claimed combination, applicants have previously submitted the declaration of Mr. Teruo Kubota, a researcher for Kao Corporation the assignee of the above-identified application, who conducted additional experiments, comparing the softening effect of the softening detergent composition using the claimed combination of a fatty acid salt in combination with sodium

hydrogen carbonate-hydrogen peroxide adduct. For the examiner's convenience the data is reproduced below:

	Present Invention	Comparative Examples				
	II-a	II-b	II-c	II-d	II-e	
Sodium carbonate-hydrogen peroxide adduct	7	-	14	-	7	
Sodium nanoyloxybenzenesulfonate	7	14	-	7	-	
Sodium sulfate	5	5	5	5	5	
Sodium linear C ₁₂₋₁₄ alkylbenzenesulfonate	18	18	18	18	18	
Sodium sulfate of fatty acid	2	2	2	2	2	
Evaluation of Detergency	A	A	A	A	A	
Evaluation of Softening	A	B	B	B	B	

While all of the compositions were evaluated to have essentially equivalent detergency, the reference compositions lacking the combination of a fatty acid salt in combination with sodium hydrogen carbonate-hydrogen peroxide adduct were all evaluated at less than maximum softening.

In contrast, the inventive composition II-a demonstrated an enhanced softening effect relative to the comparative compositions. An enhanced softening effect resulting from the combination of a fatty acid salt in combination with sodium hydrogen carbonate-hydrogen peroxide adduct, is nowhere disclosed or suggested in the cited reference. The examiner must recognize that unexpected results can overcome a rejection for obviousness. Accordingly the claimed invention would not have been obvious and accordingly, withdrawal of the rejection under 35 U.S.C. §102(b) is respectfully requested.

The rejection of claims 1, 2 and 5-7 under 35 U.S.C. §102(b) over Baker et al. U.S. 2002/0128165 as affirmed by Jayawant U.S. 3,860,694 is respectfully traversed.

No Disclosure Of Fatty Acid Salt In Combination With Sodium Hydrogen Carbonate-Hydrogen Peroxide Adduct

Baker et al. fails to disclose a **fatty acid salt in combination with sodium hydrogen carbonate-hydrogen peroxide adduct**.

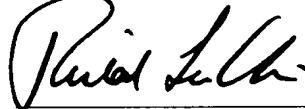
The deficiency of Baker et al. to disclose the claimed fatty acid salt is evident by the failure to reject claim 3 or 8 which recites the ratios of fatty acid salt to surfactant (claim 3) and of the clay component to fatty acid salt (claim 8). The examiner must recognize that a **fatty acid salt in combination with sodium hydrogen carbonate-hydrogen peroxide adduct** is a claim element. Since the fatty acid salt as recited in claims 3 and 8 is recited in claim 1 the combination with sodium hydrogen carbonate-hydrogen peroxide adduct is not anticipated nor would have been obvious from this reference and withdrawal of the rejection under 35 U.S.C. §102(b) is respectfully requested.

Applicants submit that this application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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